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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,250	01/21/2000	Roger W. Phillips	13676.152	5610

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EXAMINER
CHANG, AUDREY Y

ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 09/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/489,250	Applicant(s) PHILLIPS ET AL.	
	Examiner Audrey Y. Chang	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,14,66-68,76,77 and 79-81* is/are pending in the application.

4a) Of the above claim(s) *9-13,15-46,49-65,69 and 71-75* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,14,66-68,76,77 and 79-81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *15, 18* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Remark

- This Office Action is in response to applicant's amendment filed on June 14, 2002, which has been entered as paper number 17.
- By this amendment, the applicant has amended claims 1, 4, 5, 6 and 14 and has canceled claims 6, 8, and 70. Since ***claim 6 has been canceled*** the amendment to it therefore has not been entered.
- Claims 1-5, 7, 14, 66-68, 76, 77 and 79-81 remain pending in this application.
- Claims 9-13, 15-46, 49-65, 69, and 71-75 are withdrawn from further consideration for they are drawn to non-elected inventions/species.
- The rejections to claims 4-5 under 35 USC 112, first paragraph, set forth in the previous Office Action dated February 20, 2002 are **withdrawn** in response to applicant's amendment.
- The rejection to claim 4 under 35 USC 112, second paragraph, set forth in the previous Office Action dated February 2002, **still holds.**
- The double patenting rejections/objection to claims 6, 8 and 70 are withdrawn in response to applicant's cancellation of claims 6, 8 and 70.

Response to Amendment

1. The amendment filed on June 14, 2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: claim 5 has been amended to include the feature "*composite hologram*" which is not supported by the specification. The applicant is respectfully requested to provide the support from the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The reasons for rejection based on newly added matters are set forth in the paragraph above.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The reason for rejection is set forth in the previous Office Action dated February 20, 2002.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-5, 14 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Uyama et al.

The reasons for rejection are set forth in the previous Office Action dated February 20, 2002.

Claim 1 has been amended to have an "optical structure" on the surface of the substrate. Uyama et al teaches that a hologram-forming layer (4) having hologram formed within is disposed on a surface of the substrate. This hologram within the hologram-forming layer serves as the optical structure.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Uyama et al as applied to claim 1 above, and further in view of the patent issued to Berning et al.

The reasons for rejection are set forth in the previous Office Action dated February 20, 2002.

9. Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Uyama et al in view of the patent issued to Berning et al.

The reasons for rejection are set forth in the previous Office Action dated February 20, 2002.

10. Claims 66-68, 76-77 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Berning et al in view of the patent issued to Uyama et al.

The reasons for rejection are set forth in the previous Office Action dated February 20, 2002.

Response to Arguments

11. Applicant's arguments filed on June 14, 2002 have been fully considered but they are not persuasive. The newly amended claims have been fully considered and they are rejected for reasons stated above.

12. In response to applicant's argument which states that "a refraction pattern is a general term used to describe diffractive type surfaces" the examiner respectfully disagrees for this statement is ***simply wrong***. The applicant is respectfully advised to check the definition for "refraction" and the definition for "diffraction" in any standard textbook of optics. A "refraction" is *fundamentally different* from a "diffraction".

13. In response to applicant's argument which sates that the modification of the structure of cited Uyama "would destroy its intended function [is] providing a visible hologram to prevent forgery" the examiner respectfully disagrees and would like to ask why so. Any person skilled in the art would understand that the optical function of the hologram ***will not change at all*** whether the hologram is placed on a first surface or a second surface of the substrate. The substrate will not effect the optical function of the hologram at all. This modification is only an obvious design matter to one skilled in the art.

14. In response to applicant's argument which states that the configuration of instant application "results in much different and unique optical effect- a hologram viewed at one angle and other colors displayed at other viewing angles", which therefore differs from the cited Uyama reference the examiner respectfully disagrees for the reasons stated below. It is fundamental knowledge in the art that a hologram can only be viewed at certain angle for the angle-selectivity is determined by the recording process of the hologram. The hologram of Uyama therefore can *only* be viewed at certain angle for this is the *implicit* property of a hologram. Uyama reference then teaches that the transparent evaporated layer has color changing effect when viewed from different angle. The combination effect of the hologram and the evaporated layer of Uyama reference will therefore result in an unique optical effect- a hologram viewed at one angle and other colors displayed at other viewing angles, just as the instant application discloses. This reference therefore reads on the instant application.

15. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the cited Berning reference is only relied on for the teachings of having an ***absorber layer*** for absorbing stray light. It is fundamental knowledge to one skilled in the art that an absorber layer will work the same, namely for absorbing unwanted light, whether it is attached to a transparent coating or a reflective coating.

16. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, (with regard to claim 66) the cited Uyama reference is relied to provide the teachings for providing interference pattern or hologram. The hologram-forming layer with hologram formed within, particularly being transparent, will not interfere with the optical function of the color shifting optical coating of Berning. The hologram will still function the same namely it will be viewed at particular viewing angle whether the reconstruction light beam is directly transmitted through or is transmitted through then reflected through the hologram forming layer, since the reproduction of the hologram is based on the *reconstruction* light that first strikes the hologram which in either case is the same.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 703-305-6208. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703-308-1637. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Audrey Y. Chang
Primary Examiner
Art Unit 2872

A. Chang, Ph.D.
September 5, 2002